Statement of
Mr. James E. Webb
Administrator
National Aeronautics and Space Administration
before the
Subcommittee on Monopoly
Committee on Small Business
United States Senate

Mr. Chairman and Members of the Subcommittee:

I appreciate this opportunity to explain the patent policies of the National Aeronautics and Space Administration as they relate to inventions made by NASA contractors and subcontractors.

Section 305 of the National Aeronautics and Space Act of 1958, entitled "Property Rights in Inventions," contains the statutory provisions applicable to this subject. Subsection (a) provides that any invention made in the performance of work under a NASA contract becomes the property of the Government when it is determined that the invention was made under the circumstances specified in that section, "unless the Administrator waives all or any part of the rights of the United States to such invention in conformity with the provisions of subsection (f) of this section."

Subsection (f) provides:

"Under such regulations in conformity with this subsection as the Administrator shall prescribe, he

may waive all or any part of the rights of the United States under this section with respect to any invention or class of inventions made or which may be made by any person or class of persons in the performance of any work required by any contract of the Administration if the Administrator determines that the interests of the United States will be served thereby. Any such waiver may be made upon such terms and under such conditions as the Administrator shall determine to be required for the protection of the interests of the United States."

Subsection (f) also provides that in each case where waiver is granted, the Administrator shall reserve "an irrevocable, nonexclusive, nontransferrable, royalty-free license for the practice of such invention throughout the world by or on behalf of the United States or any foreign government pursuant to any treaty or agreement with the United States." It further provides that each proposal for waiver "shall be referred to an Inventions and Contributions Board which shall be established by the Administrator within the Administration. Such Board shall accord to each interested party an opportunity for hearing, and shall transmit

to the Administrator its findings of fact with respect to such proposal and its recommendations for action to be taken with respect thereto."

In administering section 305 of the Space Act, the national objectives defined by Congress in the Act serve as guides to the decisions and actions taken. At the same time, in matters relating to proprietary rights, the purposes of the patent system of the United States also serve as guides to decisions and actions.

Congress in 1958 set forth the objectives of the national program of aeronautical and space activities in section 102(c) of the Space Act. Under this Act, the aeronautical and space activities of the United States are to be conducted "so as to contribute materially to . . . the preservation of the role of the United States as a leader in aeronautical and space science and technology and in the application thereof to the conduct of peaceful activities" and "the most effective utilization of the scientific and engineering resources of the United States."

The patent system of the United States has at least three purposes: first, to encourage the investment of capital and the expenditure of effort necessary to advance

the state of an art by inventive activity; second, to provide an incentive for the expenditure of the necessary funds and effort required to develop inventions to the point of commercial feasibility and to make the benefits of inventive activity available to the public through commercial channels; and third, to stimulate prompt disclosure and publication of the results of inventive activity. This system contributes in important ways toward reaching the objectives specified by Congress in the Space Act.

NASA's present patent waiver regulations have been in effect since 1959. Their chief features are the following:

A. Waiver of the rights of the Government will not, as a general rule, be granted in the case of inventions which are peculiarly space-related. These are defined as inventions which are (1) "primarily adapted for and especially useful in the development and operation of vehicles, manned or unmanned, capable of sustained flight without support from or dependence upon the atmosphere, or (2) of basic importance in continued research toward the solution of problems of sustained flight without support from or dependence upon the atmosphere."

B. Except for such peculiarly space-related inventions, waiver will ordinarily be granted if it is shown

(1) "that the invention was conceived prior to and independently of, but was first actually reduced to practice in the performance of work under a contract of the Administration, and the invention is covered by a United States patent issued or application filed prior to the award of the contract;" or

(2) "that the invention was conceived or first actually reduced to practice in the performance of a contract of the Administration for research work with a nonprofit institution of higher education or a nonprofit organization whose primary purpose is the conduct of scientific research, and the contract does not call for the delivery of models or equipment or the development of practical processes;" or

(3) "that the invention has only incidental utility in the conduct of activities with which the Administration is particularly concerned

and has substantial promise of commercial utility;" or

(4) "that the invention is directed specifically to a line of business of the contractor with respect to which the contractor's previous expenditure of funds in the field of technology to which the invention pertains has been large in comparison to the amount of funds for research or development work in the same field of technology expended under the contract of the Administration in which the invention was conceived or first actually reduced to practice."

C. All waivers are subject to reservation of an irrevocable, nonexclusive, nontransferrable, royalty-free license for the practice of the invention throughout the world by or on behalf of the United States, or by any foreign government pursuant to any treaty or agreement with the United States.

D. In order to make certain that the rights waived to the contractor are used to make the benefits of the invention available to the public and not to suppress

use of the invention by others while not developing it himself, the present regulations provide that all waivers (with few exceptions) are voidable at the option of NASA unless the recipient of the waiver shall, on or before the end of the fifth year from the date of the grant of a United States patent on such invention or the end of the eighth year from the date of acceptance of waiver, whichever is sooner, demonstrate that:

(1) the invention has been developed to the point of practical application, or

(2) the invention has been made available for licensing either royalty-free or at a reasonable royalty rate, or

(3) there are circumstances justifying failure to comply with either of the foregoing and concurrently justifying continuance of the waiver.

Before voiding a waiver for these reasons, NASA will furnish a written notice of such intention and will allow 30 days within which to request a hearing before the Inventions and Contributions Board on the question of whether the waiver should be voided.

In the four and one half years since NASA was established, nearly 800 contractor inventions have been reported. 96 petitions for waiver have been submitted. In 30 instances, waiver has been granted under NASA's present waiver regulations. Petitions for waiver have been denied in 2 cases, while 14 of the petitions have been withdrawn. Of the 50 petitions that are pending, the NASA Inventions and Contributions Board has recommended that 6 be denied and 12 be granted.

Turning now to the current situation, a proposed revision of the NASA patent waiver regulations was published in the Federal Register for October 26, 1962, along with a request that interested parties submit comments and suggestions prior to a public hearing to be held on December 10, 1962. In the proposed revision, many of the basic features of NASA's present waiver policy are retained. The most significant changes are the following:

A. The provision making ineligible for waiver those inventions which are peculiarly space-related is omitted. Included, however, is a new provision covering certain types of inventions which, because of overriding public interest factors, should not ordinarily be the

subject of waivers. Specifically, it provides that waiver of title will not ordinarily be granted in the following cases:

(a) "Where the invention is in a field of technology in which there has been little significant prior experience outside of work funded by the Government and the acquisition of exclusive rights by the contractor might lead to domination of that field." (For example, nuclear power reactors.)

(b) "Where the invention constitutes an end item which is likely to be required for use by the public by law or governmental regulation in furtherance of the public health, safety, or security." (For example, a safety device for aircraft required for all commercial planes by Government regulation.)

(c) "Where the invention has primary utility in a field of technology in which research has depended to a major degree upon support from the Government in programs designed to create, develop, or improve goods or services intended for

use by the general public." (For example, a communications satellite developed for commercial broadcasts.)

B. The provision relating to nonprofit institutions is omitted. A new section provides that, except for cases falling within the three above classes, a "prima facie case" for waiver of title may be established by showing that:

(a) "The invention is in a field of technology in which the contractor has an established commerial interest and in which, prior to such contract, it had acquired technical competence demonstrated by factors such as know-how and patent position; or

(b) "Waiver of title to the contractor would be an effective incentive to work the invention at the earliest practicable date because of the substantial expense or investment required to do so; or

(c) "The invention was conceived prior to the contract of the Administration under which

it was first reduced to practice and independently of any other contract of the Administration and is covered by a United States patent application filed prior to the contract."

C. Compulsory licensing is substituted for action to void a previously granted waiver, and the period during which the recipient of a waiver may enjoy exclusive rights is shortened from five to three years unless proof is provided that the invention is actually being worked. This portion of the proposed revision reads as follows:

(a) "Each waiver of title shall be subject to the reservation by the Administrator of the right to require the granting of a license to any applicant on a nonexclusive, royalty-free basis unless the contractor, his licensee, or his assignee has taken effective steps within three years after a patent issued on the invention to work the invention, or shows cause why he should retain exclusive rights for a further period of time. Upon request, not more often

than annually, the contractor will be required to report the results of his efforts to work the invention."

D. The following provision is added in the proposed revision of the waiver regulations:

"Each waiver of title shall be subject to the reservation by the Administrator of the right to require the granting of a license to any applicant, royalty-free or on terms that are reasonable in the circumstances, for such practice of the invention as may be appropriate to satisfy the requirements which may be made by governmental regulations requiring use of the invention by the public."

Mr. Chairman, a careful comparison of the proposed revision with the terms of the present regulations, as outlined above, will show, I believe, that the public interest in inventions which come out of NASA's research and development contracts is more clearly stated and would, in practice, be fully protected.

Unfortunately, the proposed revision seems to have been misunderstood as an attempt to circumvent the Congress by

accomplishing, through administrative action, certain changes in NASA patent policies and procedures which have been considered by Congress but not enacted into law. I wish to state that this is not the case. Although the various bills for amending section 305 of the Space Act differ in details, it is characteristic of them that rights in inventions would be determined at the time of contracting, with the Government obtaining only a license unless circumstances at that time indicated the need for securing greater rights. As indicated above, under the proposed revision of our waiver regulations the Government would by law and incident to the contracting process obtain full rights to each invention unless, at a later date, commercial rights were waived. Such a waiver would be granted only after the invention has been identified and an application for waiver has been acted upon. Thus, the proposed revision continues to utilize the procedure which has been in effect from the very beginning of NASA's administration of section 305. It is fundamentally different from that proposed in the various bills to amend section 305.

It is important, I believe, to understand the differences between the proposed NASA patent waiver revision and

the patent policy of the Department of Defense. The proposed NASA revision differs essentially from DOD policy and practice in three respects:

First, the proposed NASA revision would continue to require that no rights in an invention would be granted to a contractor until the invention had been identified, reported to NASA, and a petition for waiver had been acted upon by the Inventions and Contributions Board. The Department of Defense decides on rights distribution at the time of contract. Second, unlike DOD patent policy, the proposed revision specifically takes into consideration the research and development programs of other Government agencies in providing for retention of title by NASA in appropriate cases. Third, even after waiver is granted by NASA, the contractor is precluded from retaining exclusive rights if he employs the patent for no other purpose than to suppress use by others of the invention.

It is evident from NASA's present waiver regulations and the proposed revision that we are convinced that the public interest is often best served by permitting a contractor or subcontractor to retain commercial rights to

inventions made in the course of doing research and development work funded by NASA -- provided, of course, the Government acquires a royalty-free license for use of the invention for governmental purposes, and provided, also, that the invention is actually worked. NASA's policy is intended to encourage use of inventions in two ways: first, by bringing the stimuli of the patent system into play and, second, by withholding the full benefits of waiver until public realization of the fruits of the invention have been achieved. Such a policy offers many advantages over a restrictive policy which would permit contractors to retain patent rights only in the exceptional case. The economy should not be deprived of the substantial benefits of the patent system. Incentives for contractors to conceal and protect new technological developments as trade secrets rather than to disclose them as patentable inventions are not desirable in government contracting for research and development. Historically, patent protection has been one of the rewards for full disclosure and publication.

At the same time that the proposed revision of the patent waiver regulations was published, NASA issued another

set of regulations prescribing how it will make available for industrial or commercial development the patented inventions to which it holds title. These include patents on inventions made by Government personnel in NASA research centers as well as inventions made by contractors. The authority for these regulations is section 305(g) of the Space Act, which provides:

> "The Administrator shall determine, and promulgate regulations specifying, the terms and conditions upon which licenses will be granted by the Administration for the practice by any person (other than an agency of the United States) of any invention for which the Administrator holds a patent on behalf of the United States."

These patent licensing regulations became effective on October 26, 1962. Under them NASA will offer revocable, nonexclusive, royalty-free licenses under its patents to all applicants for a period of two years after issuance of the patent. If, after the patent is two years old, no one has developed the invention commercially, the outstanding licenses may be revoked and an exclusive license may be

granted to a single developer. Thus, in appropriate cases, NASA will seek to utilize the incentive of exclusivity and thus to foster the development and use of inventions on which it holds patents.

At the time of publishing in the Federal Register the patent licensing regulations and the proposed revision of the patent waiver regulations, I pointed out that a scientific research and technological development effort of the scope and magnitude of that being conducted by NASA is certain to produce important innovations and inventions which can be widely used and which constitute a valuable national resource. I stated at that time that NASA regards with a sense of deep responsibility the importance of developing the full potential for commercial purposes of the technological advances which are developed, of stimulating inventions, and of providing incentives for their use -- not only in terms of new products and services but as a general contribution toward continued economic growth.

Public hearings were held on the proposed revision of the waiver regulations on December 10, 1962, and on January 28, 1963. The material and views presented at

these public hearings, and the written comments and suggestions received from others who did not appear at the hearings, are being given careful study. Before putting into effect any revision of its present regulations, NASA will publich its reasons for accepting or rejecting every suggestion received. It is already clear that a number of changes will be made in the proposed revision, as published last October. In the meantime, NASA will continue to administer section 305 of the Space Act under the provisions of the waiver regulations which have been in effect since 1959.